



BROOKHAVEN BULLETIN

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October 14, 1971

BNL Host To 150 For Symposium On Ion Sources, Beams

On October 19th through 21st, Brookhaven National Laboratory will be host to the Symposium on Ion Sources and Formation of Ion Beams.

This first assembly of its kind in the United States started with Th. Sluyters who was convinced that such a meeting was long overdue and that it would help accelerate development of more intense and bright ion sources used in a wide range of applications in science and technology. In addition, publications on ion sources in this country and abroad are scattered over many periodicals. This Symposium is aimed to assemble ion source information mainly from the Western Hemisphere.

Sources of ions are an essential element of the most diverse instruments: accelerators, electromagnetic isotope separators, ion engines for space propulsion, ion implantation machines, mass spectrometers, injectors into magnetic traps, etc. The need for "brighter" beams and increased current remains not limited to such scientific devices as our modern accelerators. Our still utopic electric utilities in the form of fusion reactors need ion sources of intensities still beyond our present technology.

The meeting will attract top men in this field. More than 150 participants are anticipated from all over the world, including Austria, Canada, Denmark, Egypt, England, France, Germany, Holland, India, Italy, Japan, Russia, Switzerland, and the USA.

The three-day meeting will open on Tuesday morning in the Snyder Seminar Room of the AGS with welcoming remarks by Lab Director Maurice Goldhaber, Accelerator Department Chairman Fred Mills, and Symposium Chairman Th. Sluyters.

Session I, on Theory and Technology, will be led by C.D. Moak, Oak Ridge; Session II, Space Propulsion, by H.W. Loeb, Giessen, Germany. Session III will be on High Energy Accelerator Sources, and will be chaired by Th. Sluyters.

Session IV, on Wednesday morning, devoted to Production of Intense Ion and Neutral Beams, will be under the chairmanship of H.K. Forsen of Madison, Wisconsin. On Wednesday afternoon, Session V, Technology, Ion Implantation, New Sources, will be chaired by A. Septier, Orsay, France.

On Thursday morning, Session VI, Polarized and Negative Ion Production, will be led by J.L. McKibben, Los Alamos, New Mexico.

On Thursday afternoon, Session VIIA will cover Polarized Ion Production, with H.F. Glavish, Stanford, California, as chairman. Session VIIB, a parallel session on Negative Ion Production, will be chaired by E. Heinecke, Heidelberg, Germany. Session VIIC will consist of a summary of the symposium presented by J. Kistemaker, Amsterdam, The Netherlands.

The organizing committee for the symposium from Brookhaven consists of V. Kovarik, R. Lankshear, D. Larson, and Th. Sluyters.

Mail Notice

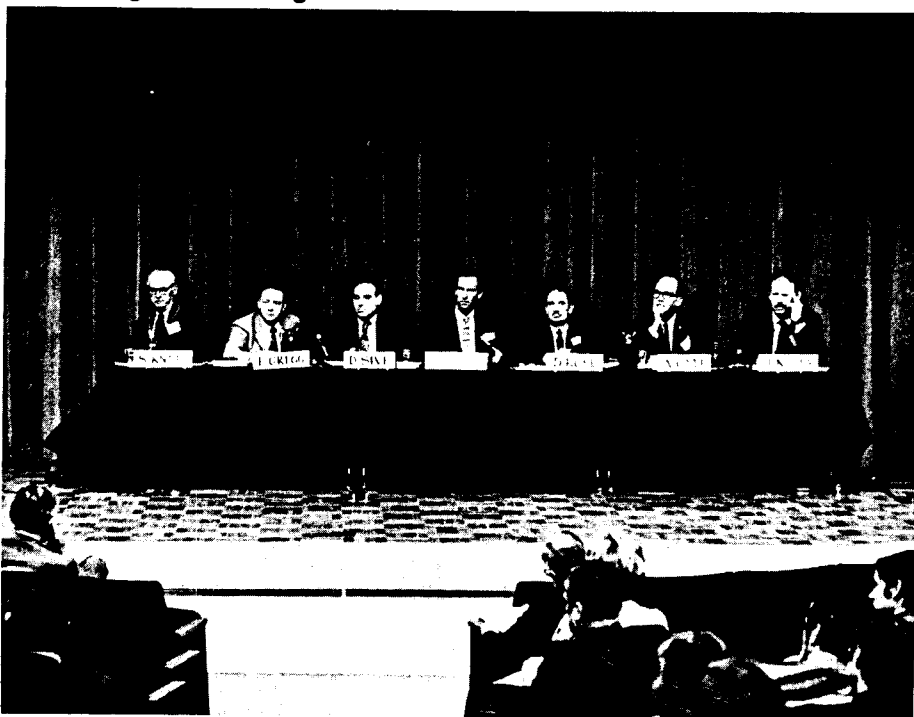
"Printed Matter" mailed to a foreign country must not be sealed. The Laboratory Mailroom must unseal such material to permit mailing at "Printed Matter" rates.

Domestic "Library" rates for mail apply only from and to Libraries. No "Library" rate mail may originate at the Laboratory except from the Libraries (Research or Physics Preprint) when the return address specifies "Library" and the addressee is a Library or an educational institution.

Car Registration Reminder

Employees who regularly drive their cars to work are reminded to register them with the Plant Protection and Security Division. This is a simple procedure which requires only a short stop at Security, 24 Upton Road, to fill out the necessary form and pick up a car sticker for the left front bumper.

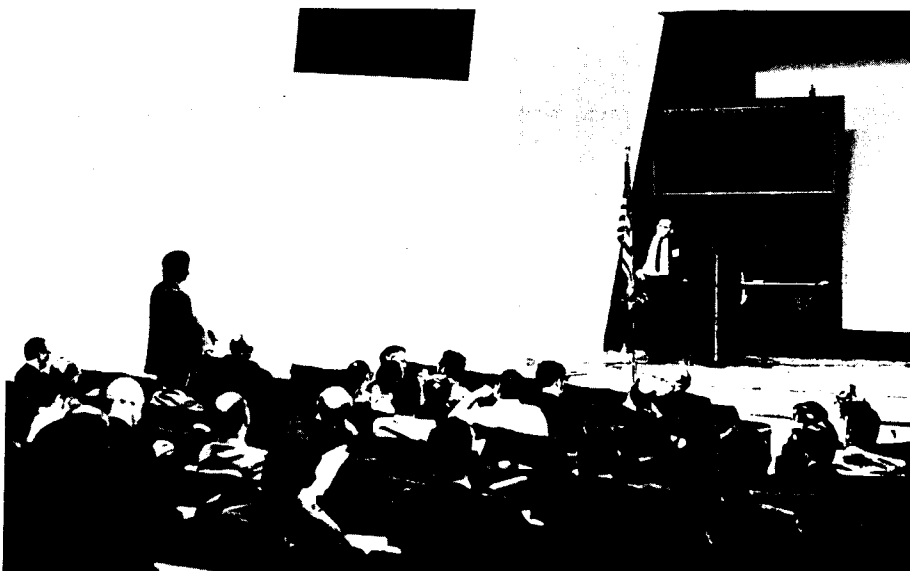
Sound Region Planning Conference



The conference on Energy, Environment and Planning - The Long Island Sound Region, closed last Thursday with a panel session that included from left, Sherman Knapp of the Northeast Power Coordinating Council, representing the utilities; R. Frank Gregg of the New England River Basins Commission, representing the planning community; David Sive of Winer, Neuburger, and Sive, representing the legal community; Philip Palmedo of the Department of Applied Science, Session Chairman; David J. Rose of the Massachusetts Institute of Technology, representing the technical community; Addison S. Cate of Project CEVAL, representing the public; and J. Neary of "On The Sound," representing the news media.



Time out for a coffee break and an animated discussion of the previous session by Dave Gurinsky of DAS and George Vineyard, Deputy Director.



Following his talk on The Ecological Effects of Energy, George Woodwell of Biology answers a question from the audience.

Brookhaven Semester Student Picnic



The Semester Students attended a picnic sponsored by the AAAC last Sunday afternoon. What had been planned as a picnic was moved into the Rec Hall because of the rain. Enthusiasm was not dampened however, as eating, dancing, and ping-pong went on throughout the afternoon. The students were introduced to raw clams, steamed clams and clam chowder. At this writing, all students are alive and well. A controversy still rages about the ping-pong champ as final showdown matches among Ken Belton (Grambling), Bob Gwathney (Police), and Irv Montanez (Medical) were not completed, due largely to fatigue on the part of the older contestants. Additional get-togethers would perhaps be of help in introducing the Semester Students to the BNL community.

BNL Party Time Starts At 2 P.M. Tomorrow

Friday, October 15, will be the magic day when all employees of Brookhaven will celebrate the 25th Anniversary of AUI/BNL.

All employees and their wives or husbands are invited by Lab Director Maurice Goldhaber to join in the festivities.

Speeches and introductions will be kept to a minimum, and the emphasis of the day will be on music, refreshments and entertainment. In addition to a marching band and a Dixieland group, there will be special showings of the film story of Brookhaven, and two performances of a nostalgia-oriented slide show at 3 and 4 p.m.

To cap off the day, a number of the research facilities will be open for visits, including the Biology Department, the Computing Center, the Chemistry Department, the Physics Department, the Tandem Van de Graaff, the High Flux Beam Reactor, the High Intensity Radiation Development Laboratory, the Hot Laboratory, the Alternating Gradient Synchrotron, and the 200-MeV Linear Accelerator.

Most of the areas that will be open on this special day, have not previously been available for the casual visitor. The special arrangements made for Friday offer an unusual opportunity for employees to see some of the "glamour machines" of Brookhaven.

The party will be notable because of being held during working hours, for the benefit of those employees who are able to attend and wish to do so. Supervisors have been asked to schedule work on Friday so that all except the most essential employees can join in the festivities.

Today's Anniversary Symposium in Berkner Hall is also open to all employees who may wish to attend. Overflow audiences will be accommodated in the theater where closed-circuit television equipment has been installed.

The morning session of the symposium, with Maurice Goldhaber as chairman, will consist of a speech by William Fowler titled "Prospects in Nuclear and High Energy Astrophysics," and another by Francis Schmitt on "New Opportunities and New Commitments in Biomedical Research."

The afternoon session, starting at 1:45 p.m. under the chairmanship of Gerald Tape, will be a speech by Glenn T. Seaborg with the intriguing title "Brookhaven: An Adventure in Scientific Research."

CLC Issues Ruling On Vacation Accrual Rate

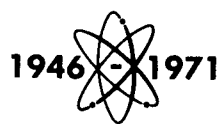
The Cost of Living Council recently ruled that increases in vacation accrual based on years of service are to be treated the same as longevity increases and may not be granted during the Wage-Price freeze.

The Laboratory's incremental vacation accrual rate based on 5, 10, 15 and 20 years of service (including the three days granted on the 10th anniversary of employment) fall into this category. In order to comply with this ruling, the Laboratory must suspend all vacation accrual rate changes until after the end of the Wage-Price freeze.

This action will affect all weekly paid employees whose vacation accrual rate was scheduled to be increased between August 15 and November 14.

Gym Closes Temporarily

In order to prepare for the scheduled Visitors' Days, the Gymnasium will be closed for all athletic activities starting on Monday, October 18. Reopening date will be Tuesday, November 9 at 5:00 p.m.



AUI-BNL
Twenty-Fifth
Anniversary

FDA Urges Controls On X-Ray Equipment

The Food and Drug Administration proposed on October 8 to require that equipment manufactured for x-ray diagnosis in the healing arts incorporate new radiation control features to reduce patient and operator exposure during x-ray examinations.

The action was taken by publication in the Federal Register of a proposed performance standard covering both medical and dental diagnostic x-ray equipment. The standard was developed by the FDA Bureau of Radiological Health under the Radiation Control for Health and Safety Act.

X-ray examinations, the FDA noted, constitute the largest single source of man-made radiation reaching the American people.

"While the beneficial applications of x irradiation in the healing arts are well recognized, exposure from diagnostic x-ray procedures have far more public health significance than exposures from all other man-made radiation sources," said Charles C. Edwards, M.D., Food and Drug Commissioner. "More than 90 percent of all human exposure to man-made radiation comes from the diagnostic use of x-ray in contrast with about one percent from radioactive discharges from nuclear power plants about which there has been so much public concern."

Two provisions of the standard are regarded as representing outstanding progress in diagnostic x-ray exposure control. One would require stationary general purpose x-ray machines to be designed to insure limitation of the beam to approximately the size of the body area to be examined. The other would require radiographic (film using) equipment to be able consistently to reproduce exposure and, therefore, image quality for given settings for voltage, current, and time.

Failure to keep the x-ray beam within the area of the body undergoing diagnostic examination is one of the commonest causes of unnecessary x-ray exposure. Bureau of Radiological Health studies show, for example, that a reduction of as much as 30 percent or more in the genetically significant dose from diagnostic x-ray can result from limiting the beam to approximately the size of the film or other x-ray receptor. The genetically significant dose is the dose that may be harmful to future generations.

The exposure reproducibility requirement of the standard would enable the technologist to know with greater confidence than is now possible what results to expect at various equipment settings and thus to avoid picture retakes, also a common cause of unnecessary diagnostic x-ray exposure.

Real limitation in stationary general purpose equipment would have to be insured, under the proposed standard, either by the incorporation of devices for automatically adjusting the beam to film or reception size by the use of interlocking systems that would prevent x-rays from being produced until the equipment has been manually adjusted to restrict the beam. Other types of diagnostic x-ray equipment also would have to provide for beam restriction, but means other than automatic or interlocked restriction could be used.

The proposed standard also would limit the amount of leakage from x-ray sources in diagnostic equipment. This would be 100 milliroentgens in one hour measured at one meter in any direction from the source. The proposed limitation, the FDA said, is "in substantial accord" with recommendations of the National Council on Radiation Protection and Measurements and the International Commission on Radiological Protection.

The FDA added that the proposed radiation leakage limit is considered to be appropriate "in view of the small exposures from leakage radiation relative to other sources of x radiation to which the patient is exposed during a diagnostic examination."

The leakage limitation would apply to the x-ray tube within its housing and with a beam-limiting device in place, rather than in terms of a single component, such as the tube. Manufacturers of beam-limiting devices would be required to specify tube housing assemblies with which their products would be compatible in terms of leakage limitation compliance.

X-ray equipment manufacturers would be given a year following the effective date of the standard to produce equipment complying with its provisions. The proposed

posed standard would become effective upon republication in the Federal Register after 60 days for public comment.

In commenting on the FDA action, BNL's Associate Director, Dr. Victor P. Bond, stated that "By 1956 it was well realized that medical diagnostic x-ray represented by far the largest contribution to human exposure from man-made radiations, and since then efforts have been made to reduce exposure from this source."

"I am pleased to see the present proposed action of the FDA, because it extends and formalizes these continuing efforts. The move is in complete accord with the philosophy and practice of radiation protection, i.e., although no somatic or genetic effects in human beings have been documented following exposure to the low dose received from modern, routine diagnostic x-ray procedures, the conservative assumption is made that there may be some degree of effect. Thus, the strong recommendation that all exposure be kept as low as practicable, and that no exposure be permitted without adequate justification."

"Limitation of exposure from diagnostic x-ray must, of course, be exercised judiciously, since no one wants to curtail unnecessarily the obvious and important benefits derived from the use of this powerful diagnostic tool."

Personnel Services At the Recreation Office Open Daily 9:00 a.m. to 1:00 p.m.

Radio Club

The Radio Club will hold a meeting at the Recreation Building on Thursday, October 14, at 8:00 p.m.

Activities for Visitors' Days will be discussed.

Stony Brook Events

A lecture on brain-wave control and a continuing discussion of the influences of science and technology on the quality of life are among events open to the public this week at the State University of New York at Stony Brook. Unless otherwise indicated, the events listed are open to the public without charge.

Monday, October 18

Associate Professor of History Herman Lebovics continues his series of lectures, "From Liberalism to Communism: Origins of Contemporary European Ideologies, 1648-1848," with a discussion of "Political and Economic Thought in the 18th Century," 5 p.m. in Room 109 of the Lecture Center.

Acrylics and drawings by Walter Winika will be exhibited in the Stony Brook Union Art Gallery, 10 a.m. to 5 p.m., through October 22.

Tuesday, October 19

Professor of Philosophy Richard Zaner continues his lecture series, "Philosophical Foundations of the Social Sciences," 6 p.m. in Room 143 of the Humanities Building.

"Brazil: A Report on Torture," a film directed by Saul Landau (who made "Fidel") and Haskell Wexler ("Medium Cool"), will be shown at 7:30 p.m. in the upstairs lounge of the International Residential College at Stony Brook, as part of the fall International Film and Lecture Series. The film includes interviews with political prisoners released to Chile in exchange for the kidnapped Swiss ambassador.

Thursday, October 21

"Brain-Wave Control and Associated States of Consciousness" is the topic of a lecture by Dr. Lester Fehmi, Assistant Professor of Psychology at Stony Brook and a noted expert on alpha waves. His lecture is at 4 p.m. in Room 111 of the Lecture Center and is part of a fall lecture series sponsored by the Religious Studies Committee.

The lecture series on "Antiscience," presented by Physics Professors Leonard Eisenbud and Nandor Balaz, continues with a discussion of the influence of science and technology on the quality of life, at 8 p.m. in Room 110 of the Lecture Center.

Distinguished Professor of English Alfred Kazin continues his lecture series on "Literature of the 20th Century," which focuses on works by Freud, Marx and Engels, Dostoevsky, Joyce, Mann, Nietzsche and Sir James Frazer, at 5 p.m. in Room 102 of the Lecture Center.

"Latin American Cultural Development: Historical Roots," a series of lectures by Professor of Art Fernando Alegria, continues at 5 p.m. in Room 110 of the Lecture Center.

"The Cinema: A World Overview" film series presents three black-oriented films: "Black Panther," "Black Natchez," and "Malcolm X" at 8:30 p.m. in Room 100 of the Lecture Center.

Here and There

Claire Lamberti

David Berley (Accel), head of the EP & S Division of the Accelerator Department, has been named a Fellow of the American Physical Society.

Sanford Lacks (Biology) recently returned to Brookhaven after spending a year's sabbatical at Hebrew University in Jerusalem, Israel.

Henry Grahn and Vincent O'Leary (both Director's) attended the annual Budget Officers' meeting at Los Alamos Scientific Laboratory on October 7 and 8.

Samuel I. Beale and Richard E. Kendrick (both Biology) recently attended the meeting of the American Society of Plant Physiologists in Pacific Grove, California; Mr. Kendrick presented a paper on "Ionic relations and phytochrome in *Pisum sativum* epicotyls."

J. Fajer and S. Feldberg (both DAS) have been invited to attend the Symposium on Bio-electrochemistry sponsored by the National Science Foundation, in Princeton, New Jersey, October 10-14.

Attention All Cooks!

The next session of the cooking exchange group is on Thursday, October 21. The place is the Recreation Building in the apartment area and the time is from 3 to 5 p.m. Featured this week will be two main dishes, baked clams and a pear pie. To cover the costs of recipes demonstrated and for the babysitters, there is a charge of 75¢ per session for each person attending.

Coming attraction - Thanksgiving party on November 18.

Pool Reopens October 18

The Fall season of the Swimming Pool is scheduled to begin on Monday, October 18. The Monday through Friday hours will be as follows:

Employees Only 12:00 noon-1:30 p.m.
Employees/Families/ 5:00 p.m.-9:30 p.m.
*Visitors

The entrance fees will be:

Season Passes:
Employee \$10
Family 20

Daily Admission:
Employee/Family Member 50¢ ea.
*Visitor 75¢ ea.

Season passes may be purchased at the Pool or Recreation Office.

*Visitor must accompany the employee who is permitted to bring a maximum of 5 visitors per family each visit.

Mountain Club News

There will be a meeting of the BNL Mountain Club on Thursday, October 14 at 7:30 p.m. in the Recreation Hall.

Air Mail Reminder

There is no Air Mail Service to the following states:

	Zip Codes
Connecticut	
Delaware	
Maine	
Maryland	
Massachusetts -	
except Boston	021 ...
New Hampshire	
New Jersey	
New York -	
except Buffalo	140, 141, 142, 143 ...
Rochester	144, 145, 146 ...
Syracuse	130, 131, 132 ...
Pennsylvania	
Rhode Island	
Vermont	

However, a letter in an airmail envelope must have airmail postage affixed regardless of its destination.

Bank Closed

The Upton Branch of Bankers Trust of Suffolk, N.A. will be closed on Monday, October 25, Veterans Day.

1946-1971
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NORBERT J. DERNBACH
Public Relations Officer

Cleveland Quartet — First BERA Concert

The Concert Committee is proud to present the Cleveland Quartet for the opening concert of the 1971-72 season. The concert will be held at 8:30 p.m. in Berkner Hall on Wednesday, October 20.

The Cleveland Quartet was launched with a sensationally brilliant debut at the Marlboro Music Festival in the summer of 1969, and musicians and patrons of music who attended the debut concert are still talking about the Quartet's perfect ensemble, dazzling technique, and profound music-making. Their first season was completed to the accompaniment of raves and standing ovations.



Cleveland String Quartet

The members of the Quartet are Artists-in-Residence at the Cleveland Institute of Music. At this time, they are in residence at the State University of New York at Buffalo, where they will alternate with the Julliard Quartet in playing the annual Beethoven cycle, thereby succeeding the Budapest Quartet.

The Chicago Tribune had this to say of the talents of the Cleveland Quartet: "Blend such talents into a quartet and the results are phenomenal. Technical troubles? Forget it. Phrasing? They breathe as one. Insight? Penetrating. Sound? Gorgeous. What more can be said? Among their peers there is no competition. The line to the great string ensembles is direct."

The BNL concert will feature the following program: Beethoven - Quartet No. 12 in E Flat Major, Op. 127; Mozart - Adagio and Fugue in C Minor, K.546; Ravel - Quartet in F Major.

Tickets will be sold in the lobby of Berkner Hall on the night of the concert; they are priced at \$4 for adults and \$2 for those under 18. Series tickets, priced at \$12 for adults and \$6 for those under 18, are available through departmental representatives and at Berkner Hall on the evening of the concert. The public is cordially invited to attend, and may purchase either series or single admission tickets.

Arrivals & Departures

Arrivals

Judah M. Frankel.....Applied Math
Dirk Schwalm.....Physics
William J. Shells.....P.E.P.
Leola M. Shelby.....Director's
Mary C. Toole.....Medical
Jose Vargas.....P.E.P.

Departures

Daniel A. Bassano.....Physics
Charles Quappe.....Fiscal



Laboratory League Champions, Bio-Meds. (Back Row, Left to Right) John Schlitz, Dick Ruffing, Henry Henck, Carl Heinrichs, George Latham, Bill Scott, Bob Borer and Ray Connolly. (Front Row) Tom Weldon, Frank Drell, Joe Abata and Bill Studier.



Brookhaven League Champions - Old Timers. (Top Row, Left to Right) Jim Foesler, Mike Zguris, Rick Murgatroyd, Walt Reams, John Sucher, Gary McGovern. (Bottom Row) Bel Sylvester, Julius Varela, Don Cassidy, Ralph Nelson.



Dean Easler, Softball Executive Board Publicist, was the Master of Ceremonies for the evening.



Brookhaven League Champions, Supply & Materiel. (Top Row, Left to Right) Larry Musso, John Bennett. (Bottom Row) Stan Mars, Lou DiCarlo, Ron Mulderic.



Mixed League Champions, the Saints. (Top Row, Left to Right) Ruth Faine, Kay Hunt, Pat Oster, Ray Atkins, Carmen Falkenbach and Ruby Burwell. (Bottom Row) John May, Vernon Faine, Dick Albert and Henry Henck.

Softball Finale

On Wednesday, October 6, BNL softball players enjoyed their post season celebration in a new setting. In years past the season had been concluded with a party at the softball field. But, this year League President, Mike Zguris, proposed an evening with a party for softball players and presentation of awards to the League Champs at the Brookhaven Center. It was an enjoyable evening with many individuals expressing favorable comments to the new format.

Recreation Director, George Sabine, and two members of the Awards Committee, Eena-Mai Franz and Jim Hooper, were present to assist in presenting the awards to the Championship Old Timers - Brookhaven League, Supply & Materiel - National League, Bio-Meds - Laboratory League, and the Saints - Mixed League. League Champions emerged from amongst twenty teams and approximately 350 participants in the softball program.

This year's season was another enjoyable one for most of us and there are many more in store. Comments, ideas and opinions aimed at improving the activity are always needed and welcome in order that softball shall continue to thrive as a vigorous and rewarding sport at BNL.

Bowling News

Grace Fales

Green League

The only 200 for the night was Joe Scesny's 212. Bubble Boys are in 1st place, followed by the Designers in 2nd. The Fireflies went from 7th to 4th place by taking all 7 points from the Red League's Phoubars.

Pink League

The Fiscal Assets have moved into 2nd place dropping the Pinsplitters to 3rd, with the Alley Oops holding on to 1st place by only 1 point. Helen Caisey led the night with her 187/498, Renie Rosati 163/459, Mary Austin 174, and Bev Nine 160 bowled highs for the night. Series were terrible for everyone else but the footwork was dazzling and the body english simply spectacular.

Red League

For the Old Timers this week we have J. Sucher with 213, G. McGovern 200 and R. Nelson 211. For the Neutrons J. Petro 201, N. Carter 200 and R. Larsen 204, and Ken Asselta 202 for the Lucky Strikes.

Black and Blue League

YES - there is a mixed league this year. The Cellar Dwellers managed to crawl to the attic with the Four Bees buzzing at their tails. Highs for the night were Ben Belligan 185, Phil Borzi 183/175/499 series, Dick Murgatroyd 177/172, Rick Murgatroyd 173 and for the ladies Helen Caisey was high with her 168 followed by Marie Borzi's 159.

Football Notes

by Jack Brennan

The playoff schedule is set. The unbeaten Gazelles play the fourth place Phoubars and the second place Highballs play the third place Slow Pokes.

The games are set for tonight with the two winning teams playing next week for the League Championship.

The Gazelles won their final game beating the Super Sutures 41-0 for their fourth shutout in five games. B. Casey had 3 T.D.'s for the winners.

The Highballs beat the Phoubars 44-12 and the Slow Pokes 24-6 as L. Snead's passes to J. Crow, W. Reams and E. Taylor paved the way for two easy victories.

The Phoubars beat the Red Dogs for the final playoff slot 20-6 as P. Hlavac scored 2 T.D.'s.

Final Standings:

	Won	Lost
Gazelles	5	0
Highballs	4	1
Slow Pokes	3	2
Phoubars	2	3
Red Dogs	1	4
Super Sutures	0	5

Met Opera Tickets

Metropolitan Opera tickets may be purchased at the Recreation Office daily between 9:00 and 1:00.

The limitation ruling that was in effect during the initial sale of tickets has been lifted and you may now purchase as many tickets as you wish.

The following is a list of dates and operas for which there are still tickets available.

October		
Tuesday, 19	Fidelio	
Tuesday, 26	L'Elisir D'Amore	
December		
Tuesday, 21	Samson Et Dalila	
January		
Monday, 24	Pelleas Et Melisande	
February		
Tuesday, 1	Werther	
Monday, 7	La Forza Des Destino	
Tuesday, 8	L'Elisir D'Amore	
Thursday, 10	Pelleas Et Melisande	
Monday, 14	Werther	
Tuesday, 29	La Forza Des Destino	
March		
Thursday, 9	La Fille Du Regiment	
Tuesday, 14	La Fille Du Regiment	
Thursday, 16	Fidelio	
Monday, 20	Fidelio	
Thursday, 30	La Fille Du Regiment	
April		
Tuesday, 18	La Fille Du Regiment	

Cafeteria Menu

Week Ending October 21, 1971

Friday, October 15	
Clam & Celery Bisque	
Fried Shrimp w/Tartar Sauce	
& French Fries	.95
Roast Leg of Lamb w/Mint Jelly	
& 1 Veg.	.95
Broiled Halibut w/Carlton Butter	
& 1 Veg.	.95
Monday, October 18	
Tomato Soup	
Roast Fresh Ham & 1 Veg.	.90
Chicken Patties w/Giblet Gravy,	
Currant Jelly & 1 Veg.	.90
Western Omelet w/French Fries	.80
Tuesday, October 19	
Vegetable Soup	
Grilled Ham, Sausage & Pineapple	
& 1 Veg.	.90
Creamed Chicken & Mushrooms	
on Noodles	.90
Sauerbraten w/Potato Pancakes	.90
Wednesday, October 20	
Minestrone Soup	
Baked Beef Loaf & 1 Veg.	.85
Shrimp Chow Mein on Crisp Noodles	
& Boiled Rice	.90
Polish Kielbasy w/Mashed Potatoes	
& Sauerkraut	.80
Thursday, October 21	
Beef Barley Broth	
Beef Hash w/Brown Gravy	.80
Baked Lasagna w/Meat Sauce & 1 Veg.	.90
Broiled Chicken Livers w/Bacon Strips	
& 1 Veg.	.85

Classified Advertisements

Positions Available

The Brookhaven Bulletin each week will list job openings which have come to our attention and may be of interest to Lab employees. Each listing will be repeated (if still available) only once.

- TECHNICIAN - Neutron Physics Group, Physics Department.
- SCANNER I - Part-time, temporary. Physics Department.
- SECRETARY I - Chairman's Office, Department of Applied Science.
- SECRETARY II - Administrative Office, Medical Department.
- DRAFTSMAN - Experience in architectural or civil engineering drafting. Accelerator Department.
- TRAINEE I - Physics Department.

For further information, please contact Employment Supervisor, Ext. 2109 or 2513.

Autos & Auto Supplies

- 66 PLYMOUTH FURY III - Excel cond, auto trans, 4 dr sedan, aqua, sacrifice. Ext. 2245, 924-3104 after 6.
- 62 FORD FALCON - R/h, good running cond. Asking \$200. C. Huang, Ext. 7565, 473-7751.
- 6V BATT - 73A, brand new, never used. Ext. 7415.
- 64 CHEVY - Good cond. 744-3807.
- 64 GALAXIE 500 - V8, auto trans, 2 new tires, very good running cond. Asking \$425. Guy, 473-9231.
- 70 GREMLIN - 4 psgr, r/h, std trans. \$1350. 286-9098 after 6.
- 62 VW BUG - 2 new tires, runs well. Asking \$200. Bob, Ext. 7553/7766.
- VW RIM - 5 holes, slotted. \$2. Ext. 2814.

61 PONTIAC - New auto trans, ps, 3 new tires, good running cond, leaving country. \$250 or best offer. Kappas, Ext. 388l.

VW RIGHT FENDER - & eng hood, front end parts & tuneup parts. Rich, Ext. 2735.

67 FORD RANCH WAGON - V8, auto trans, ps/pb, excel cond. \$900. J. Gabusi, Ext. 2478, 273-2391.

64 OLDS VISTA CRUISER - Excel cond, 20,000 mi on eng & trans. \$650. 289-8236.

65 F85 OLDS STATION WAGON - Ps/pb p/tailgate window, top running cond, auto trans, 5 good tires. J. Zahra, Ext. 2285, 727-7480 after 5:30.

2-14" WHEELS - 66 Chevy, \$4 ea; 2-15" wheels, 65 Olds Cutlass, \$3 ea. Ext. 7501.

65 RAMBLER CLASSIC - 4 dr, overdrive, extra rims, orig owner. \$175. K. Fuchel, Ext. 2446.

65 CHEVY BEL AIR - Ps, factory air cond, excel cond. \$650. Ext. 7469. 286-0151.

66 PONTIAC BONNEVILLE - 2 dr, V8, glass belt tires, new shocks, snows, excel cond. \$800. J. Petro, Ext. 548, 286-8249.

68 RIVERSIDE MOTORCYCLE - 125 cc, low mileage. 744-2083.

64 CHEVY IMPALA - 250-327 eng, V8, 4 on the floor, std, posi. 924-8547 after 6.

64 COMET - 2 dr sedan, 6 cyl, std trans. \$195. 363-6739 after 6.

66 MERCURY COMET STATION WAGON - Std trans, excel cond, good tires, new brakes, batt, shocks, muffler, visitor leaving. Bruno, Ext. 7601, 744-5892.

63 DODGE DART - Auto trans, ps, bad looking but good running. \$125. Dorner, Ext. 7601, 744-5892.

70 FORD ECONOLINE - Std trans, 6 cyl, excel cond. JUB-9414 after 3.

68 PLYMOUTH SATELLITE STATION WAGON - 9 psgr, good cond. \$1300. S. Shapiro, Ext. 7606, 929-6527.

63 CADDY - Fs/pb, a/c, good cond, auto, needs tuneup. \$425. 727-0488.

63 PONTIAC BONNEVILLE - 2 dr hdtp, r/h, auto trans, ps/pb, pwr windows, excel cond. Nagy, Ext. 2560, Ext. 2786 after 6.

TIRES - Firestone Town-Country studded 6.50x13, low mileage, mounted Fiat rims. 2/\$25. Ext. 2483.

62 PLYMOUTH FURY - 6 cyl, std shift, 2 new tires, new exhaust, clutch worn but runs well. Asking \$100. I. McLaren, Ext. 7683.

62 MERCURY COMET - Auto trans, rebuilt starter & carb, good tires, good running & clean. \$225. 281-8044 after 5.

64 CHEVELLE STATION WAGON - V8, auto trans, ps, very good cond. Ext. 7374.

71 FORD PINTO - Std trans, radio, dk green, luxury finish, excel cond, owner going to Europe. Bald, Ext. 7469, 286-0161.

67 FORD COUNTRY SQUIRE - 6 psgr, 390 V8, auto trans, ps/pb, extra set mounted snows. \$1150. Ext. 7544.

64 FORD STATION WAGON - V8, auto trans, ps, good tires, clean, very good cond. \$350. 325-0039.

67 VW SUNROOF - Tan, 83,000 mi, good cond. J. Yourno, Ext. 2479, 751-1359.

7.35x14 RIM - Will fit Olds or any GM car. J. Zahra, Ext. 2258, 727-7480 after 5:30.

FM CONVERTER - For auto radio, 12v. Orig \$39.95, sell \$25. P. Sparrow, Ext. 2753, 727-4859.

66 CORVETTE CONV - Both tops, blue/white int, chrome wheels, 427-4 spd. Asking \$2100. Irene. LT9-6468.

MECHANIC'S SPECIAL - 65 Chevy ½ ton pickup, new 283 eng w/2bbl carb truck trans, reasonable, needs work. 727-2896 after 5.

2 SNOW TIRES FOR VW - 1 on rim. \$15/both. Bob, Ext. 2152.

66 MG SEDAN - Red, good cond. \$250. 751-7415 after 6.

65 RAMBLER CLASSIC - R/h, overdrive, extra rims, orig owner. K. Fuchel, Ext. 2446.

66 DODGE POLARA WAGON - 6 psgr, V8, auto trans, ps, air, good tires, 2 snows on rims, luggage rack, good cond, inspected 8/31. Ext. 7353, 587-9372.

70 BUICK LE SABRE CUSTOM - Blue Tudor hdtp, blk vinyl int & roof, 17,000 mi, reg gas, 3 spd auto trans, air cond, ps/pb, w/w. Al, Ext. 2368.

63 FORD COUNTRY SQUIRE - 9 psgr, auto trans, ps/pb, less than 70,000 mi. \$200. 924-3664.

70 T-BIRD - W/leather seats, fully equipped, air cond, new tires, all pwr assist incl pwr windows. Orig list price \$6475, sell for \$3300. E.E. Halik, Ext. 7191.

64 ECONOLINE - \$375. 281-5205.

65 MUSTANG - V8, auto trans, r/h. \$475. Ext. 7219, 286-3393.

63 FORD COUNTRY SQUIRE WAGON - Auto trans, good tires. Ext. 7617.

70 LTD BROUGHAM - 4 dr sedan, select shift auto, convenience group. visibility group, rear window defogger, tinted glass. \$3000. Bernie, Ext. 7773.

MUSTANG PARTS - Doors, rims, glass, etc.; Valiant hub caps & ps pump. Ext. 2814.

Boats & Marine Supplies

6V ELEC BILGE PUMP - Used less than 1 season. Ext. 7415.

24' JERSEY SEA SKIFF (SICA) - 1961, Gray 109, mahog plank, full canvas, bow rail, sleeps 2, head, like new. \$1600. Ext. 7509, 286-2203.

16' CABIN CRUISER - W/Tee Nee trailer, fiber-glassed, sleeps 2, 40 hp, 2 tanks, full canvas, many extras. 744-8268.

18' THOMPSON 1958 - Navy top, steering controls, good/fair cond, best acceptable offer. Alo, Ext. 7378.

MARINE HEAD - Pump type, make offer. Barbara, 286-8633.

SEARS 7 HP OB 1970 - Used only 1 season. \$85. J. Coggins, Ext. 386.

Miscellaneous

NO ROOM FOR 7' POOL TABLE - Good, \$40; 2 sm drums, best offer. Mrs. DiDio, 286-0372.

6' DRAWING BOARD - W/tool drawer w/tray, reference drawer, parallel straightedge, adjustable stool & light. Al, Ext. 7211.

REBUILT PUMP - Shallow well water pump, excel cond. 281-8612 after 5.

YARD SALE - 10/16, all sorted items, Floyd Bennet Dr, Sound Beach. Susan, Ext. 670.

FRIG ELEC DRYER - Pink, good cond. \$45. Whitey, Ext. 2179.

WALNUT BEDRM SET - Danish style, chest, dressing table, chest of drawers. \$175. Bald, Ext. 7469, 286-0161.

MICROSCOPE - Kyowa KHS2, 4 objectives, 3 eye-pieces, mech stage, Koolite lamp, case, slides, extras. \$195. Saxon, Ext. 2356.

1 SET CHILD CRAFT BKS - Like new, reasonable. 727-5412 after 5.

FREEZER - 3yrs old, like new, 12 cu ft GE upright. \$100. 727-5412 after 5.

RECORD PLAYER - Emerson mono-portable, 4 spd w/ auto changer, good cond. Bill, Ext. 7480.

AM AUTOS RADIOS - Suitable for truck or boat, working & in good cond. \$10-\$25 ea. P. Sparrow, Ext. 2753, 727-4859.

CAR BED - Baby's lg size, tubular legs. \$4. Ext. 2229.

ALUM STORMS & SCREENS - 13, 7'x2'. \$50. Ext. 2229.

HORSE - Registered Appaloosa gelding, excel riding horse, well mannered. \$425. Freed, 878-1738.

POOL TABLE - Formica, 4½'x8½', ¾" slate top, adj legs, sticks, balls, bridge, cover, subway returns, like new. \$350. 475-5946.

19' RONSON DELUXE BROILER - Excel cond, used few times. \$35. Ted, Ext. 2598, LT9-2470.

DINETTE SET - Formica table, 6 chairs; maple full size bed; chrome bar stools, \$15. 289-3114.

OLD UPRIGHT TYPEWRITER - Good cond, Remington Rand, make offer. Ext. 2245.

2 WHITE RUGS - 3'x5' Karastan all wool, excel cond. \$20 ea. Barb, Ext. 2180, 751-2063 after 6.

OLYMPUS 355 CAMERA - Flash, light meter, case, camera bag. \$38. R. Meyer, Ext. 481, LT9-5757.

PERSIAN KITTENS - Asstd colors, CFA reg. 929-4631.

STOVE - Bottle gas, 20" Norge. \$25. Susan, Ext. 670.

CHORD ORGAN - 35 chords, \$35; extension ladder, 12/21', \$20. Ron, Ext. 610.

SWIMMING POOL - 18' round, compl w/filter, red-wood deck & ladder. \$350. Joe, 289-1442 after 6.

IN GROUND SWIMMING POOL COVER - Water sleeve type, heavy gauge vinyl, aqua color, brand new. 724-2932.

GUNS - Sears single shot, bolt action shotgun, 16 gauge, \$20; Sears 22 cal autoloader rifle, excel cond, \$40 firm. Rich, 585-1213.

TRICYCLES - 12" & 16"; 3 baby seats for adult bicycles. Kalbfleisch, 744-5741.

FUR - 3 skin stone marten boa. 744-9822.

BOY'S SPORT JACKET - W/2 pr slacks, shirt, tie & many extras, excel cond, reasonable, size 12. 286-8814.

VIOLIN - German made, \$130; men's luggage (2) \$12.50 ea, both/\$20; 2 cameras, \$5 ea; 1 b/w Polaroid, \$9.50. Mrs. Petruk, 286-0124.

LADIES SKI BOOTS - Good cond, buckle style, size 8½, used only a short time. Marlene, Ext. 7711.

TV SET - 21" Philco table model w/floor stand. \$25. J. Schirmer, Ext. 2450.

12" TV "SANYO" - only 5 mos old on guarantee, owner leaving Lab. Orig price \$65, now \$45. Nagy, Ext. 2560, Ext. 2786 after 6.

FREE-LANCE TYPING - Limited technical, reasonable rates. 744-5545.

BOY'S COAT - Might Mac, size 18, dk green, fur collar, pile lined, like new, worn 4 times. W.C. Dunnigan, Ext. 7677.

PRESTO PORTABLE OVEN - New, never used. \$15. Tom, Ext. 7212, 744-9085 after 6.

GERMAN SHORT HAIR POINTER PUPS - AKC reg, field & show, in Patchogue. 475-8899.

BROWNIE UNIFORM - Compl outfit, size 8. \$4. 286-3709.

SLIDE PROJECTOR - GAF Anscomrama 980 Carousel, auto-focus, remote control, 5-100 slide trays, extra 500w halogen lamp. \$90. Tom, Ext. 7519.

SM GE REFRIG - Fine for apt or rec rm, 1 dr w/enclosed freeze section; Dutch rabbits, 5 wks old, great pets for children. J. Penney, Ext. 597, 878-0642.

PIANO BENCH - W/storage compartments. \$5. Tom, Ext. 7212, 744-9085 after 6.

BICYCLE - 24" Rollfast, mint cond. \$20 firm. 286-8814 eves.

ROTO-BROIL - Infra-red rotisserie, never used. \$15. Ext. 2229.

2 PORCH ROCKING CHAIRS - Alum w/tubular plastic webbing, \$5 ea; lamp table, 2 tier, nutmeg, glass top, 25" dia, evcel, \$25. Barb, Ext. 2180, 751-2063 after 6.

HEATHKIT - Model 1G-102 RF signal generator, new cond, \$23; Conar Model 221 tube tester, w/picture tubes adapter & instructions, new cond, \$38. G.F. Buhl, 744-2506.

LOBSTER TRAPS - 38" oak w/nylon funnels & balast, 100' polypropylene rope & spongebox body, brand new, never used. \$10 ea compl. 744-3807.

YARD SALE - Oct 16 & 17, 10 am - 5 pm, 62 & 70 Terry Rd, N. Patchogue, lg variety & lots of collector's items. Ext. 2268.

CLOCKS - Cleaned, repaired, overhauled, antiques our specialty incl Grandfather & Grandmother clocks, free estimates. J. Davis, Ext. 2522, 473-1523.

MAJESTIC ALTO SAX - 3 yrs old, excel cond. Cost \$265, sell \$150. Ted, Ext. 2598, LT9-2470.

BAMBOO LOUNGE CHAIR - Caterpillar cushion, good cond. \$20. H. Forsberg, Ext. 2293.

ST BERNARD - 5 mos, AKC reg, all shots, etc. ½ orig price. 286-1378 eves.

GRETCH GUITAR - Old Country Gentleman model, 2 pickups & case. Rich, Ext. 2735.

ELEC TUBES - For WWII military transmitters, all new in cartons. Richie, Ext. 7228, 655-7651 after 6.

BARGAIN BASEMENT SALE - Sports equip, household goods, books, etc, 10/14/71. R.D. Baker, 286-0868.

LIVELY LITTLE PUPPIES - Need loving homes, free, 3 females, tan & white & brown & white, well-bred. M. Lee, Ext. 2306, SH4-6130 after 6.

IN GROUND SWIMMING POOL COVER - Water sleeve type, heavy gauge vinyl, aqua color, brand new. 724-2932.

OLYMPUS 35MM CAMERA - Flash light meter, leather case, camera bag. \$38. R. Meyer, Ext. 481, LT9-5757.

1 PR PILOT SEATS - From Chris Craft boat. \$25. R. Meyer, Ext. 481, LT9-5757.

KITCHEN SET - Formica table 6 chairs, good cond, \$70; Deming deep well rod & piston pump, \$25. R. Meyer, Ext. 481, LT9-5757.

PAGOTA LIGHTS - George, Ext. 7272.

SKI BOOT - Men's size 13, lace, good cond, \$15; child's 4' skis, binding, poles, \$6; boot lace, size 13, \$6; boot buckle, size 2, \$9. Ext. 7353, 587-9372.

CARD TABLE & CHAIRS - \$10; high chair, \$6. Barbara, 286-8633.

BLK LEOTARD - Sm girl's Danskin, size 4-6x, \$2; Capozio ballet shoes, blk, size 2C, \$2; sm girl's Highland Dancing shoes, approx size 13. D.R. MacKenzie, Ext. 572.

12 GA SHOTGUN - Remington model 1100, gas operated automatic, excel cond. \$125. Ext.7172, 751-1660.

EXERCISE BIKE - Odometer/speedometer tension control. \$40. Ext. 7219, 286-3393.

BOY'S MIGHTY MAC COAT - Size 18, dk green, fur collar, pile lined, new. \$25. C. Dunnigan, Ext. 7637.

SEWING MACHINE - Kenmore, w/attachments for all stitches, buttonholer & extras, walnut cabinet, very good cond. 286-8946 after 4.

JR GIRL SCOUT UNIFORM - Size 7, compl. Orig \$13, sell \$6. D.R. MacKenzie, Ext. 572.

RINGER TYPE WASHER - Works fine, easily repairable leak. \$15. 744-5545.

TOM'S TV REPAIR - Expert TV service in the evening at minimum costs. 878-0567.

OAK FIREPLACE LOGS - Custom cut, split, delivered & stacked, well seasoned. Ken, 924-4539 eves.

INTERIOR PAINTING - Done eves. For info & estimate, 924-4539 eves.

WIG - New, never worn, bought on impulse, short hair, dk salt & pepper, "Adolfo." Orig price \$30, sell \$10. D.R. MacKenzie, Ext. 572.

INFANT SEAT - Marmet coach; spring & winter coat sets, girl's size 1-4; infant red velvet sets, never used. Ext. 2814.

SINGER SEWING MACHINE - Ext. 2814.

2 COIL SPRINGS - Twin size. \$5 ea. 286-8946 after 4.

LADIES' SKI BOOTS - Buckle, size 8, good cond, used only a couple of times. \$15. Marlene, Ext. 7711.

COMPL RCA COLOR TV SYSTEM - 21" walnut console, contemporary style, full remote control, new antenna, excel cond. \$250. 286-0478.

VINTAGE CHINA CLOSET - 3 shelves, glass door, deep drawer, \$15; oak book rack, 4 shelves, 12"x19" x42", \$8. 286-0478.

SOLID HARD ROCK MAPLE CHEST - Honey color, 4 drawers, 20"x41"x35", good cond. \$35. M. Heine, 286-0478.

ALVIN FOLDING CARRIAGE - Navy blue w/new mattress, \$10; Macy's sewing machine, in desk cabinet w/attachments, \$25. Ext. 7748, 475-7272 after 6.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

½ ACRE PLUS - Beautifully wooded, on North Wading River Rd in Wading River. \$9000 or make offer. Saxon, Ext. 2366.

½ ACRE - Located in Hamlet of Brookhaven close to water. R. Meyer, Ext. 481, LT9-5757.

SOUTH HAVEN - Central hall colonial, 4 bedrms, 2 baths, 17x25 liv rm w/fireplace, study, screen porch, din rm, full bsmt, all elec, thermopane windows, vacuum cleaner system, ¾ acre heavily wooded, landscaped. \$38,000. 286-9602.

PATCHOGUE AREA - Custom colonial, lg liv rm w/ fireplace, formal din rm, 32' country kitchen, paneled study, 4 bedrms, 1½ baths, fin bsmt, att 2 car garage, 1¼ treed acres. 289-1614.

WADING RIVER - 7 rm ranch, 1 yr old, 3 bedrms, 2 baths, paneled fam rm w/fireplace, w/w, s/s, 2 car garage, full bsmt, oil baseboard heat, central air cond, 2 mi from beach, on 1 acre of woods. Asking \$46,500. Ext. 2930, 929-6459.

For Rent

E. PATCHOGUE - 12/1/71-4/1/72, furn 4 bedrm house, attractive neighborhood. \$200 + util. 475-1844.

SETAUKET - 11/1/71-12/72, furn 2 bedrm house (could rent 3rd), attractive setting, appliances, reasonable. Ext. 497.

Wanted

TREE REMOVAL - Pruning, chain saw service, painting & ground maintenance, etc. Bob, Ext. 316, 732-9517.

BOAT TRAILER - To handle 22' boat, tandem wheels. Nancy, Ext. 7509.

42" COMB SINK & TUB - W/cabinet. 585-8322.

BUNK BEDS - For Boy's rm. 744-3995 after 4.

FREEZER - At least 14 cu ft. Ralph, Ext. 481, 744-8921.

UTILITY TRAILER - Or frame & axles only, reasonable, cond not important. Harry, Ext. 7272.

GOOD HAND CARPENTRY TOOLS - Used, saw, brace & bite, plane, rule, etc. 281-2002 after 5.

STORAGE FOR ANTIQUE AUTO - Within 10 mi of Centereach. Harry, Ext. 7272.

ANY PRE 1942 ANTIQUE CAR PARTS - Books, tools etc., 1 piece or lg lots, must be reasonable. Harry, Ext. 7272.

DRESSMAKING & ALTERATIONS - Excel references, reasonable. Karen, 281-2002.

½ TON or ¾ TON PICKUP TRUCK - 8' body, good cond. 286-1257.

FLUTE - In good cond, reasonable, for student. 286-8724.

BOY'S SNOW SUIT - Size 3, good cond. Judy, 473-1958.

ISRAELI TUTOR - To engage 2 chilren in Hebrew conversation 1 hr/wk. Lacks, Ext. 359, 286-1022.

HOMES - For 1 calico angora female (Persian), 1 Burmese Siamese male (w/o Siamese wail), 1 lovable alley cat, kittens, 4 mos old. Ext. 7733, 744-5219.

HONDA - 450 cc, 1969 or later. G. Pitcher, Ext. 2204.

TO GET RID OF - Crib w/springs, side lowers & raises, good cond; 2 folding stair gates; bike seat & handlebar. D.R. MacKenzie, Ext. 572.

PHOTOGRAPHIC ENLARGER - W/good lense. Mrs. J.T. Clarke, 751-0226.

YOUNG BOY'S SNOW SUIT - Size 3, good cond. Judy, 473-1958.

TREE REMOVAL & CHAIN SAW WORK - Also light hauling. Ken, 924-4539 eves.

FREE-LANCE TECHNICAL TYPING - Reasonable. 744-5545.

WOMAN TO CLEAN SM HOUSE - In Coram off Old Town Rd, alternate Saturdays, w/wo transport. H. Forsberg, Ext. 2293.

FULL SIZE BICYCLE - Must have hand brakes, prefer 5 spd, but will consider 3. Foley, Ext. 7306.

Carpools

WOULD LIKE TO JOIN OR FORM - Carpool from Pt Jeff. R. Skelton, Ext. 2108/2305.

STONY BROOK/STRATHMORE AREA - S. Heller, Ext. 2583; Strongson, Ext. 2727.

WOULD LIKE TO JOIN CARPOOL - Selden-Center-each area. Louis, Ext. 482.